

## Receiving Report

Date: 12/01/16

Batch No: M121769

Supplier: Thyssen

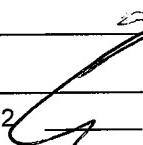
Dart P/O: 16883

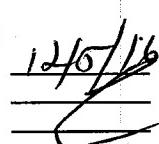
Packing Slip: Yes  No   
 Invoice: Yes  No   
 Receipt: Cash  Cr

Release Note Attached: Yes  No  N/A   
 Waybill Attached: Yes  No   
 Shipment Complete: Yes  No  N/A   
 QC6 Inspection OK 12/05/17 N/A   
 Work Order  N/A

### Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12 

Production/Admin: 12/01/16  
 Date  
 Received/Costing   
 Initial

Location 

## Purchase Order Receipt Listing

Wednesday, May 16, 2012 7:38:09 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO16883 Receipt Dates from 5/16/20  
All Item ID/GL/WOS All Rec. Employees All Currencies  
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp	Project ID Description/ Cert Std	Reference/ Stock U/M	PO U/M / Stock U/M	Required Date	Recv Date/ Reqd Qty	Recv Qty	Cost Per Unit/ Recv Value	Inspected Qty/ (PO U/M)	MRB Qty/ Rejected Qty	MRB Reject Qty	Book Amt
VendorID\Vendor Name	VC-COP001	Thyssenkrupp Materials CA Ltd			Required Qty	Recv Emp	(PO U/M)					
PO16883	1	M174B1.250X02.000 f	5/9/2012	5/16/2012	12.0000	DESJ02	12.0000	\$35.68	0.0000	0	\$432.09	
CAD	No	17.4 SS Bar 1.250 x f 2.00	121769					\$432.09	0.0000	0		
	2	M303B2.500X2.000 f 303 BAR 2.5" X 2" f	5/9/2012	5/16/2012	4.0000	DESJ02	4.0000	\$84.77	0.0000	0	\$339.09	
	No	3.25	121769					\$339.09	0.0000	0		
	12	M7075T3B2.500X0 f 7075-T73 Bar 2.50 x f 3.25	5/9/2012	5/16/2012	4.0000	DESJ02	4.0000	\$67.06	0.0000	0	\$268.23	
	No	3.25	121769					\$268.23	0.0000	0		

Total Received Quantity: 20.1100

### Total Reject Quantity

### Total Receipt Value:

### Total Balance Due Quantity:

## B I L L O F L A D I N G

No: PEC 767137

Ship From:  
 THYSSENKRUPP MATERIALS NA  
 2821 LANGSTAFF ROAD  
 CONCORD, ONTARIO L4K 5C6  
 Tel: 905 669 9444 Fax: 9057389033

Ship Date 14May12 at 13:23 From PFW  
 Probill  
 Via VIM TRANSFER  
 FOB CONCORD  
 Frt PREPAID  
 Route 0- 0 Manifest  
 Vhcle Trailer  
 Slp STAN IVERS (905-532-1350)  
 Sold To: ( 20115 )  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7

Ship To: ( 1 )  
 DART AEROSPACE  
 1270 ABERDEEN ST  
 HAWKESBURY, ON K6A 1K7  
 Tel: 613-632-9577 Fax: 613-632-1053

## B I L L O F L A D I N G

1) Our Order PEC-447140- 1 Your PO # 16883  
 STAINLESS STEEL FLAT BAR 17-4 HRAP  
 1.25 X 2.00 X 155.000"

Heat Number Tag No  
 254026 66508

Quantity PCS Wt LBS  
 12 '11.0000 " 1 111

**MTR**

2) Our Order PEC-447140- 2 Your PO # 16883  
 STAINLESS STEEL FLAT BAR 303 CD  
 2.00 X 2.50 X 48.000"

Heat Number Tag No  
 E230708 66510

Quantity PCS Wt LBS  
 4 FT 1 68

**MTR**

3) Our Order PEC-447140- 3 Your PO # 16883  
 ALUMINUM PLATE 7075T7351  
 2.50" THICK X 3.2500" X 48.0000"

Heat Number Tag No  
 149791 66512

Quantity PCS Wt LBS  
 1.08 SFT 1 41

**MTR**

*149791* Tags PCS LBS  
 TOTAL: 3 3 220

**MTR**

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT WITH  
 MATERIAL AND FAXED TO THE CUSTOMER PRIOR  
 TO SHIPPING.

ATTN: CHANTAL/LINDA

\*\* ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER \*\*

\*\* REFERENCED ON IT \*\*

TOTAL 2 BARS, 1 PKG G.W 221 LBS

*1PC R-450*

*1PC see below*

Page: 1 ....Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
 RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.  
 MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

*Marie Brunet May 16/2012*

DATE

**B I L L   O F   L A D I N G**

No: PEC 767137

Ship From:  
THYSSENKRUPP MATERIALS NA  
2821 LANGSTAFF ROAD  
CONCORD, ONTARIO L4K 5C6  
Tel: 905 669 9444 Fax: 9057389033

Ship Date 14May12 at 13:23 From PFW  
Probill  
Via VIM TRANSFER  
FOB CONCORD  
Frt PREPAID  
Route 0- 0 Manifest  
Vhcle Trailer  
Slp STAN IVERS (905-532-1350)  
Sold To: ( 20115)  
DART AEROSPACE

Ship To: ( 1 )  
DART AEROSPACE

**B I L L   O F   L A D I N G**

\*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA  
CONCORD, ONT.\*      \*\*\* 9:00 AM TO 4:00 PM \*\*\*

\*\*\*\* TEL. 800-926-2600 \*\*\*\*

\*\*\*\*\*

\* WE STOCK STAINLESS STEEL \*

\* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT \*

\*\*\*\*\*

\*\*\*PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE  
ADDED TO EVERY ORDER.\*\*\*

Page: 2 .... Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ÊTRE  
RAPPORTÉES IMMÉDIATEMENT.

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY.

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT.  
MERCANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER.

DATE

942749 - PO# P01561

**MONTANSTAHL**  
 special profiles in steel 

 Tel.: +41 (91) 6416-800  
 Fax.: +41 (91) 6416-804  
 email: info@montanstahl.com

007576

**mill test certificate**

MONTANSTAHL AG, Via Garretto 4, CH-6855 Stabio

 Company  
**STAINLESS STRUCTURALS LLC**  
 590 Beautyrest Avenue  
 USA 32254 JACKSONVILLE

 product  
**Flat - ACD 2 x 2.5 Inch 11'-13'**

 mill test certificate according to  
**Customer specs**

 order n°  
**1857**  
 (36782, 37748)

 size standards  
**PT 111**

 net weight  
**4021 lbs**

 grade  
**303**

 execution  
**ACD**

 grade standards  
**ASTMA382/A382M-AM35640 type 1**

 melting  
**EAF/AOD**

 bundles  
**942749, 943009, 943010, 943011**

heat	C	Si	Mn	P	S	Ni	Cr	Mo	Ti	Al	N	Cu	Pb	V	Co
E230706	0.055	0.58	1.76	0.029	0.268	8.60	17.62	0.27			0.014	0.59		0.10	

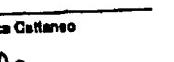
  

tensile strength	yield strength		elongation	area reduction	hardness	Impact test
	Rm	Rp 0.2%				
93 kN	63 kN	Rp 0.2% 61 kN	50 %	65 %	HB	KV

- We hereby confirm that the material certified in this document is conform to enclosed data sheet
- Material is produced in compliance with ROHS (2002/95/EC)
- Material free from Mercury and radioactive contamination

- Country of melt: Germany
- Country of manufacturing origin: Switzerland

 This report is a copy of original  
 mill certificate and verifies  
 that the product meets the  
 requirements as originally ordered  
 by Energy Steel Products

 DATE: 12/05/17 VERIFIED BY: 

Trade Mark



date

04.10.2011

The works' inspector

Luca Cattaneo



From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401840220

Part:

PO: PEC-239000

Wgt: 67.920 LB

Date: 05/03/2012



**DATA SHEET FOR ACD STAINLESS STEEL FLAT BARS IN  
GRADES 303, 304 / 304L AND 316 / 316L**

Applicable standards	Rev.	Grade		
		ASTM - 303 UNS - S30300	AISI - 304/304L UNS - S31400	AISI - 316/316L UNS - S31600
ASTM	A320/A320M	2003	X	X
	A484/A484M	2003a	X*	X
	A582/A582M	1995b	X	
	A276	2004		X
	A370-03a	2003	X	X
	A479/A479M	2004		X
AMS	5640T (type 1)	2003	X	
	2241N	2003	X	
	5653F	2002		X
	5648K	2002		X
	S 7720 A	1997		X
	5639H (type I)	2002		X
	5647H	2002		X
	2248E	1993		X
ASME	QQ S 763A	2003		X
	SA479 + S2.1	1998		X

**Chemical values**

	C (%)	N (%)	Mn (%)	Ni (%)	Cr (%)	P (%)	S (%)	Mo (%)	Al (%)	Si (%)	Ca (%)	Na (%)
303	0,15	1	2 <sup>(1)</sup>	8-10	17-19	0,6 <sup>(1)</sup>	0,35 <sup>(2)</sup>	0,15	0,1	0,75	0,1	0,60
304/304L	0,03	0,75	2 <sup>(1)</sup>	8-10,5	18-20	0,5 <sup>(1)</sup>	0,03	0,04	0,1	0,50	0,1	
316/316L	0,03	0,75	1-2	10-14	16-18	2-3	0,03	0,04	0,1	0,75	0,1	

<sup>(1)</sup> Maximum values

<sup>(2)</sup> For thicknesses ≤ 0,25": S<sub>min</sub> = 0,20

**Mechanical values<sup>(A) (B)</sup>**

Grade	Thickness	ASTM UNS	EN UNS	EN UNS	HRP UNS	HRP UNS
303	Up to 0,5"	75	30	30	40	140-241
	Over 0,5"	75	30	35	50	223
304/304L	Up to 0,5"	90	45	30	40	140-223
	Over 0,5"	75	30	40	50	140-223
316/316L	Up to 0,5"	90	45	30	40	140-223
	Over 0,5"	75	30	30	40	140-223

  
12/05/17

<sup>(1)</sup> Maximum values; hardness is measured in centerline of width after removal of specific surface layer (see ASTM A320)

<sup>(2)</sup> Minimum values

<sup>(3)</sup> Cold drawn flat bars are not intentionally strain hardened but drawn to specific dimensional tolerances.

<sup>(4)</sup> Cold drawn flat bars have a higher magnetic permeability than HRAP flat bars.

- Solution annealed at 1050°C and water quenched
- Intergranular corrosion test according to ASTM A262 practices A, C & E (where applicable)
- Micro and macro structure: OK
- Grain size per ASTM E112: 5-7
- No welding or weld repairs
- Material free of contamination from mercury or metals liquid at ambient temperature

**GG 31/08/2004 SPECIFICA DI  
VENDITA**

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From: Copper and Brass Sales

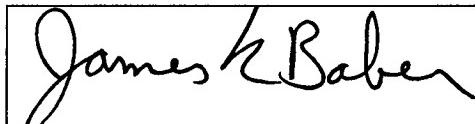
Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401840220

Part:

PO: PEC-239000

Wgt: 67.920 LB

Date: 05/03/2012



**COPPER AND BRASS SALES****MATERIAL TYPE****STAINLESS STEEL****AISI SERIES****200 300 400****AND****PRECIPIT HARDENING GRADES****"WARNING"**

INHALATION OF FUMES, FRESHLY GENERATED BY THE WELDING OF STAINLESS STEEL CONTAINING ONE OR MORE OF THE FOLLOWING INGREDIENTS, ZINC, MAGNESIUM OR COPPER, ARE KNOWN TO CAUSE METAL FUME FEVER. INHALATION OF DUST OR FUME FROM STAINLESS STEEL CONTAINING ONE OR MORE OF THE FOLLOWING INGREDIENTS, ALUMINUM, IRON, MANGANESE, SELENIUM, OR TIN, HAS ALSO BEEN REPORTED TO CAUSE METAL FUME FEVER AND MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT AND/OR AGGRAVATE PRE-EXISTING CONDITIONS. TARGET ORGAN IS PRIMARILY THE LUNG.

THIS PRODUCT MAY CONTAIN CHROMIUM, NICKEL OR COBALT. EXPOSURE TO DUST OR FUME MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE. UNDER HIGH TEMPERATURES, HEXAVALENT CHROMIUM MAY BE PRODUCED, IF IN THE INSOLUBLE FORM, IT IS A CONFIRMED HUMAN CARCINOGEN. THIS PRODUCT MAY ALSO CONTAIN NICKEL AND COBALT. INHALATION OF NICKEL OR COBALT DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT. NICKEL AND COBALT HAVE BEEN IDENTIFIED AS POTENTIAL HUMAN CARCINOGENS.

IF COATED WITH OIL, MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT. WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE STAINLESS STEEL MATERIAL SAFETY DATA SHEET (MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL.

\* If processing or recycling produces particulate, use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use appropriate NIOSH approved respiratory protection (P95; P100 for lead with, quantitative fit testing required) if exposures exceed the permissible limits.

\* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.

\* Stainless steel, in solid form and as contained in finished products presents no special health risk.

\* Sold for manufacturing purposes only. This product can be recycled; contact your sales representative.

The Occupational Safety and Health Administration require employers to provide training in the proper use of this product.

For additional information, call or write to Copper and Brass Sales, 22355 West Eleven Mile Road, Southfield, MI 48033, telephone 248-233-5600, or visit our web site @ [www.copperandbrass.com](http://www.copperandbrass.com).

# Acciaierie Valbruna s.p.a.

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.

Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Besteller/Purchaser/Cient

VALBRUNA STAINLESS INC.

2400 TAYLOR STREET WEST

46801-FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.

Herrsteller/Item/Usine productrice



QUALITY MANAGEMENT SYSTEM  
CERTIFIED BY LLOYD'S REGISTER

## CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2005), 3.1

14/507

1

Avviso di Spedizione: D-VI11027050

Lieferanzeige/Packing list/B.L.

Certificato nr: MEST094086/2011/  
Prüfung/Test/Essai

Conferma ordine nr: EI11001617  
Werter/Our Order Ref. nr.

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark  
Sigle de l'usine productrice



Ordine nr: 29546 STOCK CAROL STR

Bestell/Your order/Commande

Stato di fornitura: Descaled COND. A Hot rolled

Lieferzustand/Delivery state/Etat de livraison

### Specifiche:

Anforderungen / Requirements / Exigences

VSI 2 630 A

AMS 5843 R S17400 A

ASTM A564 2010 S17400 A

AISI 830

ASME SA564 2010 S17400 A (o)

AMS 2303 F .

ASTM A370 2011 .

(0) SEC.II PT.A 2010 EDITION

Qualità: 630

Werkstoff/Grade/Nuance

Marca: V174

Markenbezeichnung/Brand/Nuance

Punzonatura: 630  
Kennzeichnung/Marking/Marque

Pos. nr. Pos. nr. Nr. de poste	Oggetto Geprägtes Produkt Descript. du produit	Dimensioni - In Abmessungen Dimensions Dimension	Tolleranza Toleranz Allowance Tolerance	Lunghezza - In Länge Length Longueur	Colata Schmelze Heat Coulée	Pezzi Stückzahl Pieces Pieces	Peso - LB Gewicht Weight Poids	Lotto nr. Loennr. Lot nr.
0200	Flat	2,0000 x 1,2500	484-09	150 / 159	254026		3.201	100402110

### TEST ALLO STATO DI FORNITURA

Test on delivery condition Prüfung auf Lieferbereitst. produkt test a l'état de fourniture Prueba sobre el material así como entregado

TEST	Proveits/-metodo Spannungs-/Spannungs Lang. diam. spess. Weit. Dicke. Dicke Lang. diam. spess. mm	°F Pozi. Seggi Position Locuteur Emplacement 1)	Serravamento Spannung Viel Spannung Unter statische	Serravamento Spannung Viel Spannung Unter statische	Resistenza Zugfestigkeit Tensile strength Résistance à la traction	Allungamento Dehnung Elongation Allongement	Strizione Brockelung Reduction of area Rupture	Rosilienza Kontaktspiegelheit Impact Value Résistance	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen/Required values Valeurs demandées	min max	-	-	-	-	-	-	-	-
A 12,5	68 L								363

TEST	Delta Ferrite	min	max
A	Grain size for ASTM E112		
A	RATINGS FREQUENCY		
A	RATINGS SEVERITY		

12/05/17

Sample cond. H900									
Tipo Trattamento Wärmebehandlung Traitement thermique	Temperatura Temperatur Temperature Température	Raffreddamento Abkühlung Onderkoeling Refrichnement	Permanenza Halbwertszeit Permanence Méthode	Tipo Trattamento Wärmebehandlung Heat Treatment Traitement thermique	Temperatura Temperatur Temperature Température	Raffreddamento Abkühlung Onderkoeling Refrichnement	Permanenza Halbwertszeit Permanence Méthode	Tipo Trattamento Wärmebehandlung Heat Treatment Traitement thermique	Temperatura Temperatur Temperature Température
Aging	900 °F	AIR	60 °						
TEST	Provetta/ Probett/ Probette Spannungs-/Spannungs Lang. diam. spess. Weit. Dicke. Dicke Lang. diam. spess. mm	°F Pozi. Seggi Position Locuteur Emplacement 1)	Serravamento Spannung Viel Spannung Unter statische	Serravamento Spannung Viel Spannung Unter statische	Resistenza Zugfestigkeit Tensile strength Résistance à la traction	Allungamento Dehnung Elongation Allongement	Strizione Brockelung Reduction of area Rupture	Rosilienza Kontaktspiegelheit Impact Value Résistance	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen/Required values Valeurs demandées	min max	170	-	190	-	10	-	40	388 444
B	12,5	68 L	184	201		16	54		429

Mechanical properties according to ASTM A370.

Delta Ferrite according to AMS 2315.

1) L=longitudinale, T=tetrasversale, C=tangenziale/tangential

Vicenza, 06/09/11  
VC0008  
(Mod. MCE2)

Il collaudatore di stabilimento / der Werkssachverständige / Works Inspector / L'agent d'usine

M.Rizzotti / Rebst

Pagina - 1 di 2

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401840241

Part: PO: PEC-239000

Wgt: 111.000 LB Date: 05/03/2012

James E. Baber

# Acciaierie Valbruna s.p.A.

38100 VICENZA (Italia) - Viale della scienza, 25 z.l.

Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clients / Besteller/Purchaser/Client  
VALBRUNA STAINLESS INC.  
2400 TAYLOR STREET WEST  
46801-FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.  
Herrsteller/Item/Usine producteur

Stato di fornitura: Descaled COND. A Hot rolled  
Lieferzustand/Delivery state/Etat de livraison



## CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2005), 3.1

Aviso di Spedizione: D-VI11027050  
Lieferanzeige/Packing Ref.B.L.

Ordine nr: 29546 STOCK CAROL STR  
Bestell/Your order/Commande

Tipo di Elaborazione: E+AOD  
Erhitzungs-/Melting process/Mode d' élaboration

Certificato nr: MEST094086/2011/  
Prüfung/Test/Essai

Conferma ordine nr: EI11001617  
WerksOur Order/Ref nr.

Marchio di Fabbrica:  
Zeichen des Lieferwerkes  
Trade mark:  
Sigle de l' usine productrice

Punzone del Collaudatore:  
Stempel des Werkzeugverständigen  
Inspector's stamp/Pointage de l' inspecteur



### Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/Coulée	min - max 0,070	1,00	1,00	15,00 17,00	0,50	3,00 5,00	3,00 5,00	-	0,150 0,350	0,040	- 0,030	0,050	5°C 0,350	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	Nb+Ta	P %	S %	N %	Cb-Nb	Ta %	
254026	0,039	0,38	0,50	15,39	0,15	3,32	4,62	0,048	0,291	0,028	0,001	0,040	0,291	0,0002	

Annealing temperature 1904 deg. F for 1 h , air  
cool to below 90F.

Micro and macro etch test: satisfactory.

Produced without class I-II Ozone depleting substances.

Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste  
Die gestellten Anforderungen sind erfüllt.  
The material has been furnished in accordance with the requirements  
Le matériels a été trouvé conforme aux exigences

Controllo antimescolanze: OK  
Vorwärts Ingrifung: speziell analysiert durchgeführt  
Anstrich testing performed: OK  
Controle antimescolanze fait: r.o.c.

Controllo visivo e dimensionale: soddisfa le esigenze  
Bauhöhe und Außenmaße ohne Bearbeitung  
Visual inspection and dimensional check=ok  
Controle visuel et dimensionnel: satisfaisant

Melted and manufactured in Italy No welding or weld repair

Material free from Mercury contamination

We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.

The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1,a.,4.3 by TUEV and LLOYD'S

Any act of tampering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Vicenza, 06/09/11 VCQ008 (Mod. MGE2)	Il collaudatore di stabilimento / der Werkzeugverständige / Works Inspector / L' agent d' usine <i>M.Rizzotto/Rizzotto</i>	Pagina - 2 di 2
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From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401840241

Part:

PO: PEC-239000

Wgt: 111.000 LB

Date: 05/03/2012



3

**CERTIFIED TEST REPORT**  
Constellium Rolled Products Ravenswood, LLC

COPPER & BRASS SALES, INC.  
5 STERLING DRIVE  
WALLINGFORD CT  
06492-2438

COPPER & BRASS SALES  
P.O. BOX 5116  
SOUTHFIELD MI  
48086

COPPER&amp;BR 266901 4776

INCLUSION

SERIAL#: 20120213266901 PAGE 1 OF 3

CUSTOMER PURCHASE ORDER NO. & ITEM 5400105978				Constellium ORDER NO. 050-865517		CERTIFICATION			
ALLOY 7075	CLAD. 00	TEMPER T7351	GAUGE 2.50000	WIDTH 60.500	LENGTH 144.500	"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."			
ITEM ORDERED TOOLING PLT-DIST/GE SPEC PLATE, SAWED MILL									
CUSTOMER SPECIFICATION AMS-QQ-A-250/12									
PART NUMBER ALFLR00249	B/L NUMBER 266900	DATE SHIPPED 02/13/12							
WEIGHT SHIPPED 9,120	NO. OF PIECES 4	GOVT. CONTRACT NO.							

Constellium Rolled Products, LLC  
Rt 2 South, Century Road  
P.O. BOX 68  
RAVENSWOOD, WV 26164 USA

*Rodney J. Feltz*  
Rodney J. Feltz - Laboratory Manager

COND % IACS

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		MIN	MAX
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
149791	LT	2	70.3	71.2	58.6	59.5	12.0	12.0	40.8	41.2
All material contained in lot 149791 was cast and manufactured in the USA.										
ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS										
BSS-7055A TECH#8905.0 100% SONIC MINUS DEADZONE CLASS A										
ALSO CONFORMS TO AMS 4078G, ASTM-B209-07										

CHEM COMP	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH TOTAL MAX.
	SEE ACTUAL CHEMICAL COMPOSITION																	

ALUMINUM REMAINDER

P-860-155D (06/11)

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401841422

Part: PO: PEC-239000

Wgt: 40.685 LB Date: 05/09/2012

*James E. Baber*



**CERTIFIED TEST REPORT**  
Constellium Rolled Products Ravenswood, LLC

COPPER & BRASS SALES, INC.  
5 STERLING DRIVE  
WALLINGFORD CT  
06492-2438

COPPER & BRASS SALES  
P.O. BOX 5116  
SOUTHFIELD MI  
48086

COPPER&BR 266901 4776 INCLUSION SERIAL#: 20120213266901 PAGE 2 OF 3

CUSTOMER PURCHASE ORDER NO. & ITEM 5400105978				Constellium ORDER NO. 050-865517		CERTIFICATION	
ALLOY 7075				CLAD. 00	TEMPER T7351	GAUGE 2.50000	WIDTH 60.500 LENGTH 144.500
ITEM ORDERED TOOLING PLT-DIST/GE SPEC PLATE, SAWED MILL							
CUSTOMER SPECIFICATION AMS-QQ-A-250/12							
PART NUMBER ALFLR00249	B/L NUMBER 266900		DATE SHIPPED 02/13/12		RAVENSWOOD, WV 26164 USA		
WEIGHT SHIPPED 9,120	NO. OF PIECES 4	GOVT. CONTRACT NO.		Rodney J. Feltz - Laboratory Manager			

COND % IACS

LOT NUMBER	TEST DIRECTION	NO. OF TESTS	ULTIMATE STRENGTH K.S.I.		YIELD STRENGTH K.S.I.		ELONGATION %		MIN		MAX							
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.										
ACTUAL CHEMICAL COMPOSITION																		
149791	C	SI= 0.06 CR= 0.19 OTHERS-EACH: .05	FE= 0.12 ZN= 5.44 MAX.	CU= 1.47 TI= 0.03 OTHERS TOTAL: .15	MN= 0.04 ZR= 0.01 MAX.	MG= 2.60 AL REMAINDER												
<i>OK 12/05/17</i>																		
CHEM COMP	ALLOY	SILICON		IRON		COPPER		MANGANESE		MAGNESIUM		CHROMIUM		ZINC		TITANIUM		OTHERS
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	EACH TOTAL MAX.
SEE ACTUAL CHEMICAL COMPOSITION													ALUMINUM REMAINDER					

P-860-155D (06/11)

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401841422

Part: PO: PEC-239000

Wgt: 40.685 LB Date: 05/09/2012



## CERTIFIED TEST REPORT

**Constellium Rolled Products Ravenswood, LLC**

COPPER & BRASS SALES, INC.  
5 STERLING DRIVE  
WALLINGFORD CT  
06492-2438

COPPER & BRASS SALES  
P.O. BOX 5116  
SOUTHFIELD MI  
48086

COPPER&BR 266901 4776 INCLUSION SERIAL#: 20120213266901 PAGE 3 OF 3

CUSTOMER PURCHASE ORDER NO. & ITEM 5400105978				Constellium ORDER NO. 050-865517	
ALLOY 7075	CLAD. 00	TEMPER T7351	GAUGE 2.50000	WIDTH 60.500	LENGTH 144.500
ITEM ORDERED TOOLING PLT-DIST/GE SPEC PLATE, SAWED MILL					
CUSTOMER SPECIFICATION AMS-QQ-A-250/12					
PART NUMBER ALFLR00249		B/L NUMBER 266900	DATE SHIPPED 02/13/12		
WEIGHT SHIPPED 9,120	NO. OF PIECES 4	GOVT. CONTRACT NO.			

CERTIFICATION  
"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

Constellium Rolled Products Ravenswood, LLC  
Rt 2 South, Century Road  
P.O. BOX 68  
RAVENSWOOD, WV 26164 USA

*Rodney J. Feltz*  
Rodney J. Feltz - Laboratory Manager

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."

**Constellium Rolled Products Ravenswood, LLC**  
Rt 2 South, Century Road  
P.O. BOX 68  
**RAVENSWOOD, WV 26164 USA**

*Rodney J. Felty*  
Rodney J. Felty - Laboratory Manager

*cmf*  
12/08/17

P-860-155D (06/11)

From: Copper and Brass Sales

Cust: THYSSENKRUPP MATERIALS NA - ECAD Del: 2401841422

PO: PEC-239000

Date: 05/09/2012

Wgt: 40,685 LB

Date: 05/09/2012

James E. Baber

**COPPER AND BRASS SALES****MATERIAL TYPE****ALUMINIUM ALLOYS****PRODUCT DESIGNATION****2014 2024 2224 2324 7050 7075 7150 7175 7475 ALUMEC 89 ALUMEC 99 QC-7****"WARNING"**

SMALL CHIPS,FINE TURNINGS AND DUST MAY IGNITE READILY.EXPLOSION POTENTIAL MAY BE PRESENT WHEN:DUST OR FINES ARE DISPERSED IN THE AIR; FINE, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH CERTAIN METAL OXIDES; OR,CHIPS,FINES,DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH WATER OR MOISTURE.KEEP AWAY FROM IGNITION SOURCE.USE EXPLOSION-PROOF VENTILATION.KEEP MATERIAL DRY.

THIS PRODUCT CONTAINS BERYLLIUM AND COPPER.INHALING BERYLLIUM DUST OR FUMES MAY CAUSE CHRONIC BERYLLIUM DISEASE (CBD),A SERIOUS CHRONIC LUNG DISEASE IN SOME INDIVIDUALS.BERYLLIUM IS A CANCER HAZARD;OVER TIME CBD AND CANCER CAN BE FATAL,TARGET ORGAN IS PRIMARILY THE LUNG.INHALING LARGE AMOUNTS OF COPPER,MAGNESIUM OXIDE,MANGANESE OXIDE,AND ZINC OXIDE FUMES OR DUST MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS.CHRONIC OVEREXPOSURE TO COPPER MAY CAUSE THICKENING OF THE SKIN;AND SKIN,TEETH,AND HAIR DISCOLORATION.CHRONIC OVEREXPOSURE TO MANGANESE DUST CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE,SCARRING OF THE LUNGS AND REPRODUCTIVE HARM IN MALES.TARGET ORGAN IS PRIMARILY THE LUNG,BUT REPEATED HIGH EXPOSURE CAN ALSO AFFECT THE LIVER.CHRONIC OVEREXPOSURE TO IRON OXIDE DUST/FUME MAY CAUSE LUNG SIDEROSIS.CHRONIC OVEREXPOSURE TO SILICON DUST CAN CAUSE CHRONIC BRONCHITIS.OVEREXPOSURE TO AMORPHOUS SILICA CAN CAUSE DRYING OF THE MUCOUS MEMBRANES OF THE EYES,NOSE,AND THROAT.

THIS PRODUCT ALSO CONTAINS NICKEL AND CHROMIUM COMPOUNDS.INHALATION OF NICKEL DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT AND CAUSE NASAL AND/OR LUNG CANCER.NICKEL HAS BEEN IDENTIFIED AS A POTENTIAL HUMAN CARCINOGEN.EXPOSURE TO CHROMIUM DUST OR FUMES MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE.UNDER HIGH TEMPERATURES,HEXAVALENT CHROMIUM MAY BE PRODUCED,IF IN THE INSOLUBLE FORM,IT IS A CONFIRMED HUMAN CARCINOGEN.(CALIFORNIA PROPOSITION 65).

IF COATED WITH OIL,MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT.WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE ALUMINIUM/ALUMINIUM ALLOYS MATERIAL SAFETY DATA SHEET (MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL.

\* If processing or recycling produces particulate,use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use appropriate NIOSH approved respiratory protection (P95; P100 for lead with, quantitative fit testing required) if exposures exceed the permissible limits.

\* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.

\* Aluminum, in solid form and as contained in finished products presents no special health risk.

\* Sold for manufacturing purposes only.This product can be recycled; contact your sales representative.

For additional information, call or write to Copper and Brass Sales,22355 West Eleven Mile Road, Southfield, MI 48033, telephone 248-233-5600, or visit our web site @ [www.copperandbrass.com](http://www.copperandbrass.com).



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO16883**

Purchase Order Date 5/02/12  
PO Print Date 5/02/12

Page Number 1 of 5

Order From : VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone 905 669 9444

Buyer Chantal Lavoie

Vendor Fax 905 738 9033

Requisition Nbr

10127-2607

Vendor Account Nbr

Tax Resale Nbr

Net 30

Terms

CAD

Currency

FOB Destination-Collect

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
*05/02/12*

Line Nbr	Reference Revision ID	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M174B1.250X02.000 <i>080 36</i>	17-4 SS Bar 1.250 x 2.00	5/09/12 Yes	12.00 f	Yours ppd <i>12.11</i>	\$35.2500	\$423.00
		<b>Special Inst:</b>	MATERIAL: 17-4 PH SS BAR AS PER AMS 5604/5643 GRAIN MUST BE ALONG LENGTH OF BAR MINIMUM YIELD TENDILE STRENGTH = 100 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 150 KSI				
2	M303B2.500X2.000 <i>000</i>	303 BAR 2.5" X 2"	5/09/12 Yes	✓ 4.00 f	Yours ppd <i>14/01/12</i>	\$83.7500	\$335.00
		<b>Special Inst:</b>	MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE				
3	M304S18GA	304/316 .050 Sheet	5/09/12 Yes	96.00 SI	Yours ppd	\$3.9000	\$374.40

No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required when applicable

Change Nbr: 1

Change Date: 5/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO16883**

Purchase Order Date 5/02/12

PO Print Date 5/02/12

Page Number 2 of 5

**Order From :** VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

**Contact Name**

Vendor Phone 905 669 9444

Vendor Fax 905 738 9033

Vendor Account Nbr

**Buyer** Chantal Lavoie  
**Requisition Nbr**  
**Tax Resale Nbr** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

**Special Inst:** MATERIAL: AISI 304/316 SS SHEET  
ANNEALED 2B FINISH  
AS MIL-S-5059 OR AMS 5513 (304) OR  
AMS 5524 (316)  
OR ASTM A240 OR ASME SA240

4	M5052H32S.032	5052-H32 .032 Sheet	5/09/12 Yes	96.00 sf	Yours ppd	\$1.0938	\$105.00
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**Special Inst:** MATERIAL: 5052-H32 ALUMINUM  
SHEET AS PER  
QQ-A-250/8 OR AMS-QQ-A-250/8 OR  
AMS 4016  
OR ASTM B209

5	M6061T6B0.500X10.000	6061-T6 Bar .500 x 10.00	5/09/12 Yes	48.00 f	Yours ppd	\$11.9800	\$575.04
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**Special Inst:** MATERIAL: 6061-  
T6/T651/T6510/6511T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR ASTM  
B221

6	M6061T6B0.750X02.000	6061-T6 Bar .750 x 2.00	5/09/12 Yes	12.00 f	Yours ppd	\$3.7583	\$45.10
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No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 5/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16883

Purchase Order Date 5/02/12  
PO Print Date 5/02/12

Page Number 3 of 5

Order From :  
**THYSSENKRUPP MATERIALS CA LTD**  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

VC-COP001

Contact Name  
**Vendor Phone** 905 669 9444  
**Vendor Fax** 905 738 9033  
**Vendor Account Nbr**

**Buyer** Chantal Lavoie  
**Requisition Nbr**  
**Tax Resale Nbr** 10127-2607  
**Terms** Net 30  
**Currency** CAD  
**FOB** Destination-Collect

**Special Inst:** MATERIAL: 6061-T6/T6510/6511T62 ALUMINUM BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221

7	M6061T6B1.000X02.000	6061-T6 Bar 1.00 x 2.00	5/09/12 Yes	48.00 Yours ppd f	\$4.8500	\$232.80
8	M6061T6B1.500X01.250	6061-T6 Bar 1.50 x 1.25	5/09/12 Yes	12.00 Yours ppd f	\$4.4417	\$53.30
9	M6061T6B2.000X01.250	6061-T6 Bar 2.00 x 1.25	5/09/12 Yes	12.00 Yours ppd f	\$6.1500	\$73.80

No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required when applicable

Change Nbr: 1

Change Date: 5/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO16883**

Purchase Order Date 5/02/12  
PO Print Date 5/02/12

Page Number 4 of 5

Order From : VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

Contact Name	Buyer	Chantal Lavoie
Vendor Phone	Requisition Nbr	
Vendor Fax	Tax Resale Nbr	10127-2607
Vendor Account Nbr	Terms	Net 30
	Currency	CAD
	FOB	Destination-Collect

**Special Inst:** MATERIAL: 6061-  
T6/T651/T6510/6511T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR ASTM  
B221

10	M6061T6B2.000X03.500	6061-T6 Bar 2.00 x 3.50	5/09/12	12.00	Yours ppd	\$17.2542	\$207.05
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f

**Special Inst:** MATERIAL: 6061-  
T6/T651/T6510/6511T62 ALUMINUM BAR  
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8  
OR AMS 4117/4128/4115/4116  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR  
AMS 4160 OR ASTM B211 OR ASTM  
B221

11	M6061T6H1.000	6061-T6 HexBar 1.00	5/09/12	12.00	Yours ppd	\$2.2000	\$26.40
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f

**Special Inst:** MATERIAL: 6061-  
T6/T651/T6510/T6511/T62 ALUMINUM  
HEX BAR  
SPEC: QQ-A-225/8 OR AMS-QQ-A-225/8  
(OR AMS4117/4128/4115/4116)  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR  
AMS 4160) OR ASTM B211 OR ASTM  
B221

12	M7075T73B2.500X03.25	7075-T73 Bar 2.50 x 3.25	5/09/12	4.00	Yours ppd	\$66.2500	\$265.00
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f

10/04/16

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 5/02/12



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16883

Purchase Order Date 5/02/12

PO Print Date 5/02/12

Page Number 5 of 5

Order From : VC-COP001

THYSSENKRUPP MATERIALS CA LTD  
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL "A"  
TORONTO, ON M5W 5V8  
CA

Contact Name

Vendor Phone 905 669 9444

Vendor Fax 905 738 9033

Vendor Account Nbr

Buyer Chantal Lavoie

Requisition Nbr

Tax Resale Nbr 10127-2607

Terms Net 30

Currency CAD

FOB Destination-Collect

Special Inst: 7075-T73 (OR 7075-T7351/T73510/T73511) BAR PER ASM-QQ-A-200/11 OR AMS-QQ-A-225/9 (AMS 4124) OR AMS-QQ-A-250/12 (AMS 4078)

PO Total:

\$2,715.89

MATERIAL CERTIFICATION  
REQD UPON DELIVERY

No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required when applicable

Change Nbr: 1

Change Date: 5/02/12